

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(Previously Presented)** An event clustering method for clustering images comprising similar events into same event image groups from a group of images, said event clustering method comprising the steps of:

(a) segmenting each image within the group of images into a plurality of image regions, said image regions comprising at least one foreground and background segmentation;

(b) extracting at least one features from each of a plurality of successive images from the group of images to form a feature set, each of said at least one feature deriving from said at least one foreground and background segmentation, said features comprising at least one of luminosity, color, position and size of said plurality of image regions;

(c) computing a plurality of similarity measures for said plurality of successive images as a function of the similarity of said at least one feature within said feature set;

(d) measuring a plurality of image distances between successive images as a function of said plurality of similarity measures; and

(e) delimiting a set of event clusters as a function of said plurality of image distances, whereby each of said set of event clusters comprises a plurality of same event image groups, said same event image groups comprising images pertaining to a set of same events.

2. **(Previously Presented)** The method as claimed in Claim 1 wherein the step (c) further comprises the step of computing a plurality of similarity measures for said plurality of successive images as a function of the similarity of said at least one feature within said feature set for generating a distance measure that indicates the similarity or dissimilarity between said image regions.

3. **(Previously Presented)** The method as claimed in Claim 1 wherein if a predetermined number of said image regions formed in step (a) are each less than a predetermined size, then a fixed image region is generated for the foreground within said foreground and background segmentation.

4. **(Previously Presented)** The method as claimed in Claim 1 wherein the group of images are arranged in a chronological order and step (c) further comprises the step of computing a plurality of similarity measures for said plurality of successive images as a function of the similarity of said at least one feature within said feature set for estimating and comparing the similarity of said image regions comprising said foreground and background segmentation in every other image in the group of images and step (d) further comprises the step of measuring a plurality of image distances according to the total similarity between successive images and every other image.

5. **(Previously Presented)** The method as claimed in Claim 1 wherein the group of images are arranged in a chronological order and step (c) further comprises the step of computing a plurality of similarity measures for said plurality of successive images as a function of the similarity of said at least one feature within said feature set estimating and comparing the similarity of said image regions comprising said foreground and background segmentation in every other two images in the group of images and step (d) comprises the step of measuring a plurality of image distances according to the total similarity between successive images and every other two images.

6. **(Previously Presented)** A computer storage medium having instructions stored therein for causing a computer to perform the method of Claim 1.

7. **(Currently Amended)** An event clustering method using foreground and background segmentation for clustering images from a group of images into ~~for clustering images comprising similar events similar events into same event~~ image groups, said event clustering method including the steps of:

(a) dividing each image into a plurality of blocks, thereby providing block-based images;

(b) utilizing a block-by-block comparison to segment each block-based image into a plurality of regions comprising at least one foreground and background segmentation;

(c) extracting at least one features from each of a plurality of successive images from the group of images to form a feature set, each of said at least one feature deriving from said at least one the foreground and background segmentation, said features comprising at least one of luminosity, color, position and size of the regions;

(d) computing a plurality of similarity measures for said plurality of successive images as a function of the similarity of said at least one feature within said feature set, thereby leading to a plurality of image distance measures as a function of said plurality of similarity measures between successive images; and

(e) delimiting a set of event clusters as a function of said plurality of image distances, whereby each of said set of event clusters comprises a plurality of same event image groups, said same event image groups comprising images pertaining to a set of same events.

8. (Previously Presented) The method as claimed in Claim 7 wherein the block-by-block comparison in step (b) comprises extracting one or more of said features from the blocks, utilizing the features to compute the similarity of each block with respect to its neighboring blocks, forming regions from similar blocks and merging similar regions into a background and a foreground segmentation.

9. (Previously Presented) A computer storage medium having instructions stored therein for causing a computer to perform the method of Claim 7.

10. (Previously Presented) The method as claimed in Claim 7 wherein if a predetermined number of regions formed in step (b) are each less than a predetermined size, then a fixed regions is generated for the foreground.

11. **(Currently Amended)** An event clustering method using foreground and background segmentation for clustering images from a group of images into similar events, said method including the steps of:

- (a) dividing each image into a plurality of blocks, thereby providing block-based images;
- (b) utilizing a block-by-block comparison to segment each block-based image into a plurality of regions, wherein a first combination of regions comprises a foreground segmentation and a second combination of regions comprises a background segmentation;
- (c) extracting one or more features from said plurality of regions comprising said foreground segmentation and background segmentation, said features comprising at least one of luminosity, color, position and size of the regions;
- (d) computing a similarity measure between each region of the combination comprising a foreground segmentation of one image in the group and each region comprising the foreground segmentation of another image in the group of images, and further computing a similarity measure between each region of the combination comprising the background segmentation of said one image in the group of images and each region comprising the background segmentation of said another image in the group of images;
- (e) computing a mean value measure of the total similarity between successive images based on the similarity of all regions included in the combinations comprising said foreground segmentation and said background segmentation, thereby providing a measure of image distance between said images; and
- (f) delimiting a set of event **event**-clusters as a function of said plurality of image distances, whereby each of said set of event clusters comprises a plurality of same event image groups, said same event image groups comprising images pertaining to a set of same events.

12. **(Previously Presented)** The method as claimed in Claim 11 wherein said (d) further comprises the step of computing a component to account for the relative sizes of the regions.

13. **(Previously Presented)** A computer storage medium having instructions stored therein for causing a computer to perform the method of Claim 11.

14. **(Previously Presented)** A method for clustering a sequence of images into events based on similarities between the images, said method comprising the steps of:

- (a) segmenting each image into a plurality of regions, including combinations of one or more regions comprising a foreground and a background segmentation;
- (b) extracting low-level features from said plurality of regions;
- (c) utilizing the low-level features for comparing said plurality of regions comprising said foreground and background segmentation of successive images, said comparison generating an image similarity measure for said regions comprising said foreground and background segmentation of the successive images;
- (d) combining the image similarity measures for the regions comprising said foreground and background segmentation of said successive images for obtaining a global similarity measure; and
- (e) delimiting event clusters by using said global similarity measure.

15. **(Previously Presented)** The method as claimed in Claim 14 wherein said low-level features further comprise at least one of luminosity, color, position and size of said regions.

16. **(Cancelled)**

17. **(Previously Presented)** A system using foreground and background segmentation for clustering images from a group of images into a plurality of similar event image groups, said system comprising:

- (a) a first module for dividing each image into a plurality of blocks, thereby providing block-based images, said first module then utilizing a block-by-block comparison to segment each block-based image into a plurality of regions comprising at least a foreground and a background segmentation;

(b) a second module for extracting one or more features from the regions comprising said foreground and background segmentation, said features comprising at least one of luminosity, color, position and size of the regions;

(c) a third module for utilizing the features to compute the similarity of the regions comprising the foreground and background segmentation of successive images in the group, whereby said similarity includes a component to account for the relative sizes of the regions, said third module computing a mean value measure of the total similarity between successive images, thereby providing a measure of image distance between successive images; and

(d) a fourth module for delimiting event clusters from the image distances, whereby the event clusters include groups of images pertaining to the same events.

18. **(Previously Presented)** The system as claimed in Claim 17 wherein the group of images are arranged in a chronological order and said third module further utilizes the features to estimate and compare the similarity of regions comprising foreground and background segmentation in every other image in the group of images and computes a measure of the total similarity between every other image, thereby providing image distance between successive images and every other image.

19. **(Previously Presented)** The system as claimed in Claim 17 wherein the group of images are arranged in a chronological order and the third module further utilizes the features to estimate and compare the similarity of regions comprising foreground and background segmentation in every other two images in the group of images and computes a measure of the total similarity between every other two images, thereby providing image distance between successive images and every other two images.